



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,973	11/21/2003	Xin Ning	17892	4409

23556 7590 01/13/2006

KIMBERLY-CLARK WORLDWIDE, INC.  
401 NORTH LAKE STREET  
NEENAH, WI 54956

EXAMINER

BOYKIN, TERRESSA M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/718,973	Applicant(s) NING, XIN	
	Examiner Terressa M. Boykin	Art Unit 1711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1711

### **Response to Arguments**

Applicant's arguments filed 10-31-05 have been considered but are not persuasive. Applicant's arguments that the Topolkaraev et al. does not properly anticipate the claimed invention is not persuasive.

Applicants claimed invention as written continues to be broad and thus appears to be merely a "skeletal" outline of the claimed invention and thus may be interpreted as being anticipated by the reference while not venturing from the overall scope of the presently claimed invention.

For example:

Applicant's claim 1 recites "A composition for a biodegradable breathable film"...may be anticipated by the reference through out its entirety. However, note specifically:

"The present invention relates to personal care articles containing highly breathable and biodegradable films that demonstrate enhanced ductility. More particularly, the present invention relates to personal care items containing highly breathable films and precursor films comprising a biodegradable polymer and a polymer that is water soluble or water *degradable*.

With regard to applicants claimed language of "a biodegradable polyester" and a biodegradable copolyester" note that the reference on page 2 [0025] clearly states

"Any biodegradable polymer may be used in the films. Suitable biodegradable polymers include those that are degradable in the presence of naturally occurring microorganisms so that the film loses significant strength when placed in a biologically active environment, such as a composting environment. Preferred biodegradable polymers include, but are not limited to, aliphatic polyesters such as polycaprolactone, polybutylene succinate, poly(butylene succinate-adipate), polylactic acid, a terpolymer of terephthalic acid, adipic acid and 1,4-butanediol biodegradable aliphatic polyester....and copolymers, blends and mixtures of the foregoing polymers."

Note further that the plasticizer may also be considered as a copolymer. copolyester or polyester contained therein. Note that the reference discloses on page characterizes that the plasticizer may be:

"...Suitable plasticizers for polylactic acid (PLA) and other biodegradable polymers include, but are not limited to polyethylene glycol of varying molecular weight from about 500 g/mol to about 20,000 g/mol, phthalic acid derivatives such as dimethyl phthalate, diethyl phthalate and butyl benzyl phthalate, citric acid derivatives such as tri-n-butyl citrate and tri-n-butyl acetylcitrate, benzoic acid derivatives such as diethylene glycol dibenzoate, sebacic acid derivatives such as dibutyl sebacate and dioctyl sebacate, glycerol esters such as glycerol triacetate and glycerol tripropionate. Various polymeric plasticizers such as adipate derivatives are also suitable. Different plasticizers can be combined or

Art Unit: 1711

mixed together before or during compounding with the PLA or other biodegradable polyester polymers to improve and enhance the plasticization effect, and reduce migration and phase separation of the plasticizer during aging of the film. For example, polyethylene glycol can be combined with a phthalic acid derivative such as dimethyl phthalate, and the mixture can be blended with polylactic acid. Other combinations of different plasticizers including citric acid derivatives, glycerol esters and phthalic acid derivatives might also be useful. Different plasticizers can also be fed separately into an extruder during the compounding step and preparation of the precursor film. "

Note that the reference states with regard to the ratio:

The overall *amount* of plasticizer or combination of plasticizers can be in the range of 5 to 40 *percent* by weight, and more preferably from 10 to 30 *percent* by weight of the biodegradable polymer.

Applicants have previously amended the weight ratio of the polyester to copolyester in the claims. The amounts amended thereto do not appear to be of any crucial significance merely appear to indicate that both moieties are present. Nevertheless, in the instant case as noted above, the ratios would overlap and are thus anticipated. Further a skilled artisan would know to vary the ratios according to the specific characteristics sought, stretchability, etc.

Further, applicants recited "comprising" is open language and does not exclude those additional moieties etc. Disclosed in the reference, i.e. water soluble polymer, plasticizer etc. Note that the overall film continues maintain the characteristics as desired by applicants and the water soluble polymer itself may be a copolymer of a polyester moiety.

Thus, as written the claims as set forth above and in the office actions mailed both 9-23-04, and 5-31-05 the claims 1-8, and 10-20 are continued to be rejected over the US Pub 2003/0162013.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

Art Unit: 1711

another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1- 8, 10 - 20 are rejected under 35 U.S.C. 102(e) as being anticipated by USPub 2003/0162013 see pages 1-6, Tables 3 and 4 specifically [0024] through [0054].**

The reference is directed to personal care products comprising biodegradable films. The biodegradable films display enhanced breathability and ductility, and contain a biodegradable polymer and a water-soluble polymer. The biodegradable polymer is preferably a biodegradable aliphatic polyester, and the water-soluble polymer is preferably polyethylene oxide, polyethylene glycol, or a copolymer thereof.

With regard to claims 4, 10 and 11 note that the reference states that suitable filler materials include calcium carbonate.

With regard to claims 5 note that the reference states that fibers prepared from polylactic acid polymers are known.

With regard to claim 6 note that in addition to the biodegradable polymer, water soluble polymer and the filler, the precursor film, finished biodegradable film and articles produced in the present invention may optionally contain various additives such as plasticizers, processing aids, rheology modifiers, antioxidants, *UV light stabilizers*. Note that the uv light stabilizer as discussed in applicant's specification on page provides the compatibilizer to the composition.

Art Unit: 1711

With regard to claims 7 and 8 note the reference states that the precursor film produced from the polymer/filler mixture preferable contains from about 10 percent to about 70 percent by weight of the filler. More preferably, the film contains from about 20 percent to about 50 percent by weight of the filler, which overlaps applicants' claims.

With regard to claims 12 and 13 note the films of the reference are useful as disposable personal care articles because of their superior breathability.

With regard to claims 13 and 14 note Tables 3 and 4 of the reference.

With regard to claim 15 note that the blended polymer mixture may be formed into a film using a variety of techniques such as casting , blowing or compression molding as shown in Figure 1.

With regard to claims 18 discloses that the films are laminated on one or both sides of a nonwoven web such as a spun bond web, which can serve as an effective load-bearing component. With regard to claims 16 and 17 the web as disclosed in the reference anticipates the biaxially stretched and monoaxial directions as claimed.

With regard to claims 19 and 20 as noted previously, the biodegradable film is especially suitable for personal care products such as diapers, training pants, feminine pads, panty liners, incontinence product as well as wound dressing and delivery systems.

Thus in view of the above, there appears to be no significant difference between the reference and that which is claimed by applicant(s). Any differences

Art Unit: 1711

not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### **Correspondence**

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( 571-272-1700).

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

  
Examiner Terressa Boykin